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ABSTRACT

Information about the families contacted by the Expanded Food and Nutrition Education Program (EFNEP) who rejected the invitation to enroll in the program is presented. Interviews were conducted with 147 homemakers whose names appeared on a prime contact list prepared from recommendations of local public agencies. Upon completion of the interviewing, program assistants began to contact and enroll homemakers in EFNEP. Enrollment represented 58% of the homemakers on the list. Enrollment in EFNEP was most likely to occur when: (1) the homemaker was either under 30 or over 45 years of age, (2) the family income was less than $3000 and the husband was unemployed, and (3) the family participated in other public programs designed for the poor. It was observed that program assistants were more successful in enrolling homemakers when varied enrollment techniques were used. (Author/PS)

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REACHING THE HARD TO REACH WITH EFNEP

RC 007 416

AGRICULTURAL EXPERIMENT STATION/AUBURN UNIVERSITY
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ABSTRACT

Five counties in Alabama were chosen in 1964 for trial initiation of a unique food and nutrition program for low-income families. Based on the results of this pilot educational program, the basic purpose was expanded to a national scope in 1969. By 1972, Alabama was in the process of initiating the Expanded Food and Nutrition Education Program (EFNEP) in the last of its counties. Chambers County was among this group and was chosen as the study site.

This study was prompted by an interest in knowing more about the families contacted by EFNEP assistants who reject the invitation to enroll in such an educational program. Who are the "hard-to-reach" families and how do they differ from families in which homemakers are enrolled?

Interviews were conducted with 147 homemakers whose names appeared on a prime contact list prepared from recommendations provided by local public agencies. Upon completion of the interviewing, program assistants began their efforts to contact and enroll homemakers in EFNEP. Enrollment represented 58 per cent, or 85 of the original 147 homemakers on the contact list.

Enrollment in EFNEP was most likely to occur under the following conditions: (1) where the homemaker was either under 30 or over 45 years of age, (2) where family income was less than $3,000 and the husband was unemployed, and (3) where the family participated in other public programs designed for the poor. Failure to enroll was most common among homemakers who were employed either full or part time and who had the lowest levels of living. Most importantly, homemakers whose families received the least adequate diets were least likely to enroll in EFNEP. Finally, it was observed that program assistants were more successful in enrolling homemakers when varied enrollment techniques were used. The first visit was the key to enrolling a homemaker.

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REACHING THE HARD TO REACH WITH EFNEP[1]

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ALL HOMEMAKERS MAKE DECISIONS regarding meal planning, food buying, and food preparation. Determining what foods to buy and serve family members and how to prepare these foods is often a difficult task, particularly among the poor whose low income and limited nutritional knowledge are barriers to an adequate diet.

For this reason educational programs have been developed to help low-income homemakers in their selection and preparation of food. These programs are constantly being examined and updated to better meet the needs of such families. This report presents a study of such an educational program.

Activities in the Expanded Food and Nutrition Education Program (EFNEP) sponsored by the USDA Federal Extension Service and the Alabama Cooperative Extension Service of Auburn University serve as the focus of this study and report. Findings should be of interest to Extension staff and other persons concerned with improving nutritional levels of families. Knowledge of homemaker acceptance or refusal patterns with regard to participation in a nutrition program can contribute to a more complete understanding of program functioning, and of low-income homemaker receptivity to nutrition education.

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[1] This study was funded as a Hatch Act Project in Rural Development—Alabama Project 318. It is a part of a larger study now underway involving staff from both the Cooperative Extension Service and Agricultural Experiment Station.

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EXPANDED FOOD AND NUTRITION PROGRAM

In July 1964 a pilot project involving the Alabama Cooperative Extension Service and the Federal Extension Service was undertaken to help young low-income families. Program objectives were to help families improve diets, utilize economic opportunities and community services, improve family relationships, and increase homemaker awareness of the Extension Service as a source of assistance with family problems.

Methods for teaching young homemakers were developed and tested with 1,404 families in rural areas of five Alabama counties. Selected learning experiences were provided in: (1) basic nutrition and food preparation skills, (2) income management, (3) basic health and sanitation practices, (4) clothing selection and construction, (5) guidance principles for young people, and (6) housing and home management. Indigenous homemakers (persons from the same geographic area also living on low incomes) were trained as paraprofessional workers and employed as program assistants working under the direct supervision of a professional Extension home economist in each county *(1)*.

The program proved to be highly successful. In 1968, the State Cooperative Extension Services and land grant colleges received a special appropriation to initiate the "Expanded Food and Nutrition Education Program." At present (1972), the program is underway in all 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands. Extension staff in Alabama have initiated EFNEP in every county and have adapted the program to local conditions and to needs and interests of the 21,323 participating families *(2)*.

The primary objective of EFNEP is to help families acquire the knowledge, skills, and attitudes required to achieve more adequate diets. Specific objectives are to increase the homemaker's knowledge of the need for and the essentials of good nutrition, and to improve her habits (practices) and skills in buying, preparing, and serving nutritious meals. An additional objective is to help families more effectively use the varied public services available for improving the quality of their lives.

OBJECTIVES

This report is concerned with the characteristics of homemakers who enroll in EFNEP in contrast with those who reject the

program when contacted by Extension Service personnel. The primary objective was to determine whether certain homemaker characteristics were associated with either acceptance or rejection of participation in EFNEP.

A second objective was to examine methods used by program assistants in seeking to enroll homemakers in EFNEP. It was believed that certain techniques for approaching potential participants might be more effective with different types of homemakers.

METHOD OF STUDY

The study, which began during spring 1971, was conducted in Chambers County, Alabama. Families living in both rural and urban areas were surveyed, although the majority lived in the cities of Lafayette and Lanett. Chambers County was chosen because EFNEP had not been introduced there previously and was scheduled to begin during the summer. The status of the program in the county provided an ideal research opportunity, enabling interviewers to contact homemakers prior to their being invited to enroll in EFNEP by the program assistants and to test for differences in response to the enrollment invitation.

As revealed by selected demographic characteristics reported in Table 1, Chambers County is more rural and has a larger proportion of nonwhites than the overall State population. It ranks slightly behind the State in income and educational levels of its residents. These differences should be recognized when generalizing study findings to other areas.

The questionnaire was developed by Agricultural Experiment Station staff members in cooperation with home economists of the Cooperative Extension Service. A pretest of the questionnaire was conducted in the Auburn area. Items in the final draft included selected characteristics of the family and homemaker as well as nutritional practices used by the homemaker.

A list of prospective EFNEP participants obtained from local

TABLE 1. SUMMARY OF SELECTED SOCIO-ECONOMIC DATA FOR CHAMBERS COUNTY, ALABAMA, 1970

Characteristics	Chambers County	Alabama
Rural residents, per cent	56	41
Nonwhite residents, per cent	35	26
Median age, years	30	27
Median school years completed, years	10	11
Median family income, dollars	7,106	7,266

agencies working with low-income families was provided by the Cooperative Extension Service staff in Chambers County. Interviewers were recruited within the County and trained to administer the questionnaire to homemakers whose names appeared on the primary contact list. Interviews were completed with 147 homemakers prior to their being contacted by EFNEP program assistants and invited to enroll in the program.

Following completion of the interviewing phase, the program assistants began enrollment activities. Program assistants were instructed to make every effort to enroll these families into the program and were given as much time as they needed to do so. Enrollment efforts were completed within 9 months after the families had been interviewed. Of the 147 homemakers on the primary contact list who were interviewed prior to the start of EFNEP, 85 (58 per cent) were enrolled.

Nutritional practices, socio-demographic characteristics, level-of-living scores, and life outlook of homemakers and families were analyzed in terms of homemakers' acceptance or rejection of EFNEP. Data involving the nature of the initial contacts by the program assistants were also analyzed.

POTENTIAL EFNEP FAMILIES

Selected family and homemaker characteristics were determined for the 147 families comprising the primary contact list of potential EFNEP participants in Chambers County, Table 2. Such information was needed to tell what these families are like and to identify points of similarity and difference among the low-income families that are recommended by various public agencies and individuals for the nutrition education program. An understanding of the general profile of these families is an essential first step to the study of who does and who does not respond favorably to the invitation to join EFNEP.

Two-thirds of the potential EFNEP families in this County were black. The majority of homemakers were less than 44 years of age (almost half were between 30 and 45) and had 8 or fewer years of schooling. Most families were large, with 41 per cent consisting of 7 or more members. More importantly from the standpoint of any real chances for socio-economic improvement, one-third lacked a male head and one-fifth included members other than the couple and their children. Two-thirds of the families had annual incomes of $3,000 or less. More than one-third of

TABLE 2. PERSONAL CHARACTERISTICS OF 147 HOMEMAKERS ON PRIMARY CONTACT LIST FOR EFNEP ENROLLMENT IN CHAMBERS COUNTY, ALABAMA, 1971

Characteristics	Per cent	Characteristics	Per cent
Race		Family type[1]	
White	31	Complete nuclear	43
Nonwhite	69	Incomplete nuclear	36
Age of homemaker		Extended	21
Under 30	19	Annual family income	
30-44	47	Less than $1,800	41
45-59	24	$1,801-$3,000	26
60 and over	10	$3,001-$3,600	18
Education		Over $3,600	15
None	3	Homemaker's work status	
1-4 grades	12	Working full time	22
5-8 grades	43	Working part time	13
9-11 grades	34	Not employed outside home	65
12 grades & above	8	Commodity food participation	
Residence		Participant	71
Urban	66	Nonparticipant	29
Rural-nonfarm	31	Welfare participation	
Farm	3	Participant	46
Size of household, persons		Nonparticipant	54
2-3 (small family)	12	Diet adequacy	
4-6 (average family)	47	No food groups adequate	13
7 or more (large family)	41	One group adequate	39
		Two groups adequate	30
		Three groups adequate	16
		Four groups adequate	2

[1] Complete nuclear family consisted of husband, wife, and children. Incomplete nuclear family consisted of male or female family head and children. Extended family had persons other than the immediate family living in the home.

the homemakers were employed either full or part time outside the home.

Most of the families lived in one of the small cities in the County. Of the one-third residing in rural areas, only four families lived on farms. The vast majority of homemakers reported they had lived in Chambers County most of their lives.

Participation in the commodity food program was relatively high. Nearly three-fourths of the homemakers reported they were currently receiving commodity foods. Ten homemakers had previously participated in the commodity program, but were not receiving commodities at the time of the study. On the other hand, slightly less than half of the families were participants in any welfare program. About one-fourth were currently participating in Head Start or were receiving Social Security payments.

County Health Department immunization programs and the school lunch program provided for children attending public

schools were both used by about two-thirds of the families. Only a small percentage were participating in family planning, prenatal care, or "well-baby" programs. Failure of most of these families to utilize available public programs to a large extent may be a reflection of the alienation and pessimism shown by these homemakers. However, most of them expressed some hope that the future would be better and they seemed willing to work toward a better life for their families.

The critical need for nutrition education among these families was revealed by a 24-hour food recall taken on each homemaker. Only 2 per cent had received an adequate diet, defined as at least 2 servings of milk, 2 servings of meat, 4 servings of breads and cereals, and 4 servings of fruits and vegetables.

EFNEP ENROLLEES—NONENROLLEES

Several selected homemaker and family characteristics generally considered important in differentiating divergent types of social behavior are considered in the following discussion. The four categories of characteristics considered are: (1) socio-demographic, (2) social participation, (3) socio-economic, and (4) social-psychological. It was believed that these characteristics are most likely to influence or to be associated with a homemaker's willingness to participate in a nutrition education program like EFNEP.

Findings presented in tables 3 through 7 show the percentage of respondents possessing each characteristic attribute by acceptance or rejection of the EFNEP. Each percentage has its meaning only in terms of the degree to which it differs from the proportion of all respondents who either accepted or rejected the program. This means that the same 57.8 per cent who accepted EFNEP should also be similarly distributed on each characteristic considered. Percentage differences either greater (+) or less (−) than the 57.8 per cent who accepted EFNEP represent the important differential effect of a particular attribute in the selectivity of enrollment.

Socio-Demographic

RESIDENCE. A higher proportion of rural than urban residents accepted the invitation to enroll in EFNEP when contacted by the program assistants, but the difference was only 6 per cent. This small difference indicates a rather general response to the

TABLE 3. SUMMARY OF SELECTED SOCIO-DEMOGRAPHIC CHARACTERISTICS COMPARED FOR EFNEP ACCEPTOR AND REJECTOR FAMILIES, 1971

Selected characteristics	Response to program			
	Accepted	Refused	Differential[1]	Total
	Pct.	*Pct.*	*Pct.*	*No.*
All respondents	57.8	42.2	.....	147
Residence				
Urban	56.4	43.6	−1.4	94
Rural	62.5	37.5	+4.7	59
Age				
Under 30 years	67.9	32.1	+10.1	28
30-44 years	44.9	55.1	−12.9	69
45 years and over	70.0	30.0	+12.2	50
Race[2]				
Blacks	45.5	54.5	−12.3	101
Whites	84.8	15.2	+27.0	46
Education				
0-4 years	56.5	43.5	−1.3	23
5-8 years	54.1	45.9	−3.7	61
9 or more years	61.7	38.3	+3.9	60
Marital status				
Couple	65.3	34.7	+7.5	75
Noncouple	50.7	49.3	−7.1	71
Family size				
1-3 persons	60.0	40.0	+2.2	20
4-6 persons	64.0	36.0	+6.2	67
7 or more persons	51.0	49.0	−6.8	59

[1] Difference between the percentage of 57.8 and the actual observed percentage for each attribute. A plus sign indicates greater acceptance of the program than would be expected on the basis of actual observed percentage of population distribution. A minus sign indicates greater rejection of the program than would be expected.

[2] Chi-square was statistically significant at the .01 probability level.

program independent of where the family lives. Neighborhood or community differences within the rural or urban setting are not considered and these could have a differential effect.

AGE. One of the more sensitive socio-demographic characteristics considered was age of homemaker. Both younger and older homemakers were more likely to enroll in EFNEP than were those 30 to 45 years of age. Homemakers 60 or older were particularly receptive, but this might merely reflect their greater availability because of fewer demands on their time.

RACE. Race was a significant distinguishing characteristic in enrollment. It was found that 85 per cent of the white homemakers contacted were enrolled, but only 46 per cent of the black homemakers. The white differential of +27.0 per cent represented a highly favorable response rate.

Both white and black program assistants were employed by the County Extension Service for EFNEP and were responsible for making the enrollment contacts. However, most contacts involved workers and homemakers of the same race. In three cases where whites contacted black homemakers, all three refused to participate. In contrast, four of the six white homemakers contacted by blacks enrolled in the program. These few bi-racial cases are not sufficient to allow for generalization about race in program assistant-homemaker contact.

EDUCATION. Educational levels were low among these homemakers. Almost half (45 per cent) had completed 7 years of schooling or less. Differences between homemakers with various educational backgrounds who accepted or refused EFNEP were small. There was little relationship between educational level of the homemaker and her response to the nutrition education program.

MARITAL STATUS. Although the differences were not large, married homemakers living with their husbands were most likely to accept the program. The differential rate was about 15 per cent between couple and noncouple households. This difference appeared to result from less pressure for the homemaker to seek employment when a husband was present.

FAMILY SIZE. Homemakers in large families were slightly less receptive to EFNEP than were those with smaller families. (A large family was considered one consisting of 7 or more persons.) The percentage differentials were too small to indicate any significant difference between family size and accepting or rejecting EFNEP.

Social Participation

NEIGHBORLINESS. It was believed that homemakers who were friendly with their neighbors and who visited with them would be more receptive to a program such as EFNEP than would more socially isolated homemakers. This contention was tested by using a shortened form of a scale measuring women's neighborliness *(6)*. In its original form this scale employed 12 items from which the following 7 were selected as relevant to low-income families:

(1) Number of neighbors' homes you have visited.

TABLE 4. SUMMARY OF SELECTED SOCIAL PARTICIPATION CHARACTERISTICS COMPARED FOR EFNEP ACCEPTOR AND REJECTOR FAMILIES, 1971

Selected characteristics	Response to program			
	Accepted	Refused	Differential[1]	Total
	Pct.	*Pct.*	*Pct.*	*No.*
All respondents	57.8	42.2	.....	147
Neighborliness				
Low (1-4)	54.3	45.7	−3.5	35
Medium (5-6)	58.0	42.0	+0.2	69
High (7)	60.5	39.5	+2.7	43
Community service utilization				
Low (0-3)	51.4	48.6	−6.4	74
High (4 or more)	64.4	35.6	+6.6	73
Commodity food program				
Participating	64.8	35.2	+7.0	105
Not participating	40.5	59.5	−17.3	42

[1] Difference between the percentage of 57.8 and the actual observed percentage for each attribute. A plus sign indicates greater acceptance of the program than would be expected on the basis of actual observed percentage of population distribution. A minus sign indicates greater rejection of the program than would be expected.

(2) Number of neighbors with whom you talk about your problems.

(3) How often do you exchange or borrow things from your neighbors?

(4) Number of people in this community that you would recognize in a crowd.

(5) Number of people in this community with whom you talk fairly frequently.

(6) Number of families in this community that you know by name.

(7) How often you talk with any of your neighbors.

Responses to each item were classified according to whether they indicated a high or low rate of neighborliness. Each item for which a high neighborliness response was obtained was given a score of 1, and these scores were added for all seven items. This provided a range of scores from 0 (low neighborliness on all items) to 7 (high neighborliness). A tendency was observed for homemakers who interacted with their neighbors to be more receptive to this program, but these differences were too small to establish this as an important relationship.

COMMUNITY SERVICE UTILIZATION. A list of available community service programs was developed to determine the extent

to which families were using or had ever used the public services available to them in the County. Included on the list were welfare, Social Security, commodity foods, free lunches, family planning, health immunization, well-baby clinic, pre-natal clinic, and Head Start. It was believed that homemakers having prior experience with these public service programs would be more likely to respond favorably to EFNEP than would those lacking a history of program participation.

Community service utilization was rated low for families using three or fewer services and high for those using four or more. The combined difference recorded between families rated as low and high service users was 13 per cent. This indicated an appreciable difference in the acceptance of EFNEP. Enrollment was more common when the family had a high rate of participation in other community services. Experience with public agencies does appear to influence a homemaker's acceptance of other voluntary programs, such as EFNEP.

Commodity Food Program. Chambers County had a commodity food program available for low-income families rather than a food stamp program at the time of this study. Because of the direct involvement of commodity foods in the diets of recipient families, the response to EFNEP participants in the commodity food program was compared with that of nonparticipants. It was found that a much higher percentage of commodity food recipients enrolled in EFNEP than did families who did not receive commodity foods. The differential was +7 per cent among those who participated in the commodity food program, compared with −17 per cent among those not receiving this form of assistance.

This difference may be because the County Extension Service had been providing an educational program for commodity recipients at the County distribution center. A "cooking school" had been conducted for 2 years preceding the implementation of EFNEP. This previous contact between the Extension Service and many of these homemakers undoubtedly produced a more favorable climate for the program assistants introducing EFNEP.

Socio-Economic Status

Income. Each homemaker was asked to indicate the approximate amount of money that came into the household each month from all sources, and this was converted to an annual family in-

come. Sixty-six per cent of the families reported annual incomes of less than $3,000. Only 14 families (10 per cent) reported more than $3,600, while 34 families (23 per cent) had incomes between $3,000 and $3,600.

Annual family income showed little relation to acceptance or rejection of EFNEP. Families with incomes ranging from $1,800 to $3,000 were only slightly more likely to accept the program than were those with either more or less income.

Employment Status. The employment status of both the homemaker and her husband was considered in terms of the homemaker's reaction to EFNEP. Several differences were observed on both of these characteristics. In families with either no husband or an employed husband, response to the program was about average (58 per cent acceptance); however, families having an unemployed husband had a high rate of program accep-

Table 5. Summary of Selected Socio-Economic Characteristics Compared for EFNEP Acceptor and Rejector Families, 1971

Selected characteristics	Response to program			
	Accepted	Refused	Differential[1]	Total
	Pct.	*Pct.*	*Pct.*	*No.*
All respondents	57.8	42.2	.....	147
Annual family income				
Under $1,800	56.7	43.3	−1.1	60
$1,800 to $3,000	64.1	35.9	+6.3	36
Over $3,000	54.2	45.8	−3.6	48
Husband's employment status				
No husband	50.7	49.3	−7.1	71
Employed	54.2	45.8	−3.6	48
Unemployed	82.1	17.9	+24.4	28
Homemaker's employment status				
Employed full time	39.4	60.6	−18.4	33
Employed part time	47.4	52.6	−10.4	19
Unemployed	66.3	33.7	+8.5	95
Home tenure				
Owner	53.7	46.3	−4.1	41
Renter	59.4	40.6	+1.6	106
Material level of living[2]				
Low (0-4 items)	50.7	49.3	−7.1	71
High (5 or more)	67.1	32.9	+9.3	73
Communications level of living				
Low (0-2 items)	52.9	47.1	−4.9	70
High (3 or more)	63.4	36.6	+5.6	71

[1] Difference between the percentage of 57.8 and the actual observed percentage for each attribute. A plus sign indicates greater acceptance of the program than would be expected on the basis of actual observed percentage of population distribution. A minus sign indicates greater rejection of the program than would be expected.

[2] Chi-square was statistically significant at the .001 probability level.

tance. The differential for this group of homemakers was +24 per cent.

Homemakers employed outside the home were more likely than nonemployed homemakers to reject participation. The differential rejection rate for those employed full time was −18 per cent, but only −10 per cent for those employed part time. By contrast, nonemployed homemakers had a differential acceptance rate of +9 per cent. Clearly, employment of the homemaker outside the home is an important barrier to her participation in EFNEP.

Level of Living. Three measures of level of living were considered: home tenure, material possessions, and communications possessions. Little difference in response to EFNEP was found associated with owning or renting one's home. Home owners were only slightly less likely to accept the program than were renters. The majority of these low-income families rented their homes.

An important dimension of socio-economic status is the family's access to the material goods of society. One aspect can be measured in terms of the possession of facilities to improve the material quality of life. These possessions were separated into the physical needs of the family for everyday living and communications needs which provide a wider range of social contacts.

Material possessions considered involved whether the family had a refrigerator, gas or electric stove, kitchen sink, piped water, bath or shower, or vacuum cleaner. A score of 1 was assigned for each item possessed by a family. The range of possible scores was 0-6. Communication items were scored similarly, with a value of 1 assigned for each of the following items possessed — car or truck, radio, television, daily newspaper, magazines, and telephone.

Results for both level-of-living measures revealed that families lacking most of either type of items were more likely to reject EFNEP than were those having a majority of these items. The combined differences for high and low level-of-living families was 16 per cent for material possessions and 10 per cent for communication possessions.

Failure to have these items in the home may deter the homemaker from volunteering for the program because it is a home visitation program. Only six families were without a refrigerator in their home and all six of these rejected EFNEP. A majority of

the homemakers whose homes had no gas or electric stove, kitchen sink, piped water, and bath or shower also rejected the program. Perhaps these homemakers were embarrassed to have the program assistant see their home, since the program would involve using the kitchen facilities.

Social-Psychological

It is widely acknowledged that social-psychological factors play an important role in human behavior. A person who is usually happy and feels he is well liked by others will respond positively in new situations. Conversely, if a person feels the future looks bleak and people are not to be trusted, this pessimistic attitude will prevail in all of his activities.

ALIENATION (ANOMIE). To measure the extent to which personal uncertainty and pessimism are related to acceptance or rejection of EFNEP, a five-item scale based on the following statements *(5)* was used:

(1) Nowadays a person has to live pretty much for today and let tomorrow take care of itself.

TABLE 6. SUMMARY OF SELECTED SOCIAL-PSYCHOLOGICAL CHARACTERISTICS COMPARED FOR EFNEP ACCEPTOR AND REJECTOR FAMILIES, 1971

Selected life outlook characteristics	Response to program			
	Accepted	Refused	Differential[1]	Total
	Pct.	*Pct.*	*Pct.*	*No.*
All respondents	57.8	42.2	.....	147
Alienation				
Low (0-3)	55.6	44.4	−2.2	54
High (4-5)	58.7	41.3	+0.9	92
Family well-being				
Present position				
Low (1 to 3)	51.9	48.1	−5.9	27
Middle (4 to 5)	54.4	45.6	−3.4	68
High (6 to 10)	63.0	37.0	+5.2	27
Position 5 years ago				
Low (1 to 3)	53.8	46.2	−4.0	52
Middle (4 to 5)	55.0	45.0	−2.8	40
High (6 to 10)	64.3	35.7	+6.5	28
Position 5 years from now				
Low (1 to 3)	25.0	75.0	−32.8	4
Middle (4 to 5)	50.0	50.0	−7.8	24
High (6 to 10)	54.7	45.3	−3.1	53

[1] Difference between the percentage of 57.8 and the actual observed percentage for each attribute. A plus sign indicates greater acceptance of the program than would be expected on the basis of actual observed percentage of population distribution. A minus sign indicates greater rejection of the program than would be expected.

(2) In spite of what some people say, the life of the average man is getting worse, not better.

(3) It's hardly fair to bring children into the world with the way things look for the future.

(4) These days a person doesn't really know who he can count on.

(5) Public officials aren't really interested in the problems of the average man.

The findings revealed a high rate of pessimistic response among these low-income homemakers. Pessimistic responses to the first four statements ranged from a low of 74 per cent to a high of 89 per cent. Only the fifth item varied from this pattern and it did so in the sense that rather than giving a specific pessimistic endorsement of the statement half the respondents indicated they "didn't know." This uncertain response was probably caused by the inability of these low-income homemakers to relate in any real way to public officials. Their scope of human relationships and their understanding is often limited to the immediate family and other low-income people.

A five-point scale was developed by assigning a score of 1 to every pessimistic response. This provided a range of scores from 0 to 5, with higher scores indicating the most consistent pattern of alienation from the community. Sixty-three per cent of all respondents were alienated, according to their responses to these scale statements.

Little difference was observed in the rate of acceptance of EFNEP and the homemaker's alienation score. There was an almost equal distribution of acceptors and rejectors among those with either a pessimistic or non-pessimistic attitude.

Family Well-Being Perception. An attempt was made to determine homemaker perception of the family's "well-being." A picture showing a 10-rung ladder was presented to the homemaker along with the following three questions:

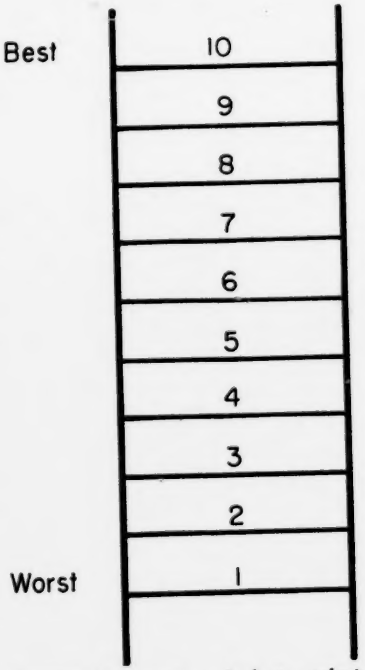
Here is a picture of a ladder. The top of the ladder represents the very best way of life for your family and the bottom represents the very worst way of life.

(1) Where on the ladder do you feel your family stands at the present time?

(2) Where on the ladder would you say your family stood 5 years ago?

(3) Where do you think your family will be 5 years from now?

In each instance the homemaker was asked to select a rung on the ladder that best described her family's position. The resulting ratings were classified as low, medium, and high well-being perceptions. There was a tendency for these homemakers to see their families as better off at present than they were 5 years before and to generally anticipate being even better off 5 years in the future.



Homemakers were asked to select rungs of ladder that represented their families' well-being at present, 5 years ago, and 5 years in the future.

Small differences were observed between the perception of family well-being and acceptance or rejection of EFNEP. Considering only present and past perceptions, homemakers who rated their family's well-being as high were most likely to accept participation in the program. Homemakers with low evaluations were least likely to accept. Results for the future well-being rating were unclear because of the rather widespread optimism that characterized all of these homemakers. Only four homemakers rated the future prospects of their families as lower than their present condition, and three of these rejected EFNEP.

NUTRITIONAL ADEQUACY

Existing nutritional practices and adequacy of diet were measured by the 24-hour food recall method. This technique involved a series of questions pertaining to the foods a homemaker consumed the previous day at meal and snack times: morning, mid-morning, noon, afternoon, evening, and before bed. All food items eaten during the 24-hour period were to be included.

There are both advantages and disadvantages in determining diet adequacy by the 24-hour food recall method. First, the recall

may involve a day which was not typical from the standpoint of the kinds of foods eaten, or the homemaker's level of intake of one or more food groups may have been especially low or high on that particular day. Second, assumptions must be made concerning the amount of food eaten. Third, some homemakers have trouble remembering all foods eaten.

Researchers tend to agree that, in spite of these limitations, the recall method is satisfactory for determining food patterns and dietary intake *(4)*. It is efficient from a time and cost standpoint. In addition, there is little bias in the procedure because the homemaker has no prior knowledge that she will be asked to describe her daily food intake, whereas other methods require the keeping of a diary over some specified period of time.

Homemaker's Food Practices

Since nutrition education is one of the major objectives of EFNEP, attention was given the nutritional practices existing in low-income families which were potential participants in the program. Did the nutrition practices of homemakers differ between program acceptors and rejectors?

Information from the 24-hour food recall revealed deficient nutrition levels for almost all of these homemakers, and provided indication of eating patterns among homemakers. Thirty-five of the families had only two meals during the 24-hour period. The majority of missed meals were at noon when snacks were often substituted. In four cases the family had no evening meal, and eight families missed breakfast.

A major consideration of the food recall was the nutritional adequacy of the foods eaten. An "adequate diet" is widely accepted as including a daily intake of foods representing four basic food groups. The level of intake considered adequate for an adult varies from two to four average sized servings: two from the milk and meat groups and four servings from both the vegetable-fruit and bread groups. No attempt was made in the food recall to assess the exact amount of food eaten in each food group, such as the size of a glass of milk or the number of peaches included in a serving. All foods included in the daily recall were described merely in terms of whether the homemaker had eaten foods from each group in her daily meals.

Using the most minimal nutrition measure of a single serving

from each food group, only 35 per cent of the homemakers reported their meals the previous day had included all groups, Table 7. Moreover, a considerable difference was observed between EFNEP acceptors and rejectors when compared on this factor. Homemakers who served at least one serving daily from each food group were more likely to accept EFNEP. This indicates a greater acceptance of food education programs by homemakers who already are aware of the importance of balanced diets and who eat foods from all food groups. Enrollees in EFNEP already had greater variety in their diets than did nonenrollees.

Adequate servings of the four basic food groups was another aspect of the nutrition situation for these homemakers. Only 8 per cent had adequate servings of vegetables and fruits in their

TABLE 7. NUTRITIONAL CHARACTERISTICS OF EFNEP ACCEPTOR AND REJECTOR HOMEMAKERS, 1971

Selected nutritional characteristics	Response to program				
	Accepted	Refused	Differential[1]	Total	
	Pct.	*Pct.*	*Pct.*	*No.*	*Pct.*
All respondents	57.8	42.2	.....	147	100
One serving from each food group[2]					
No	46.9	53.1	−10.9	96	65.3
Yes	78.4	21.6	+20.6	51	34.7
Servings from basic food groups					
Meat[3]					
None or one	42.4	57.6	−15.4	33	22.4
Two or more	63.2	36.8	+5.4	114	77.6
Milk products[2]					
None or one	51.3	48.7	−6.5	117	79.6
Two or more	86.7	13.3	+28.9	30	20.4
Bread/cereal					
None-three	53.8	46.2	−4.0	78	53.1
Four or more	66.7	33.3	+8.9	69	46.9
Vegetable/fruit					
None-three	57.4	42.6	−0.4	136	92.5
Four or more	54.5	45.5	−3.3	11	7.5
Diet adequacy of food groups					
None	31.6	68.4	−26.2	19	12.9
One group	56.1	43.9	−1.7	57	38.8
Two groups	60.0	40.0	+2.2	45	30.6
Three groups	73.9	26.1	+16.1	22	15.0
Four groups	100.0	0	+42.2	4	2.7

[1] Difference between the percentage of 57.8 and the actual observed percentage for each attribute. A plus sign indicates greater acceptance of the program than would be expected on the basis of actual observed percentage of population distribution. A minus sign indicates greater rejection of the program than would be expected.

[2] Chi-square tested significant with less than a .001 probability.

[3] Chi-square tested significant with less than a .05 probability.

daily diets. One-third of the homemakers and their families included no fruits or vegetables in their meals.

Homemakers with diets consisting of adequate servings of the remaining food groups varied from 20 per cent for the milk group, to 47 per cent for the bread-cereal group, and to 78 per cent for the meat group. Milk foods, such as fresh or powdered milk and cheese, were particularly lacking in the diets of these homemakers. Over half (58 per cent) of the homemakers had eaten no milk products, but only 4 per cent had not eaten some type of meat product.

In virtually every instance considered, some difference was observed between the existing diet adequacy and the homemaker's response to EFNEP. For instance, among the 30 homemakers who consumed an adequate amount of milk products, only 13 per cent rejected the program while half the inadequate milk consuming homemakers rejected it.

When homemaker food intake was viewed in terms of the number of food groups in which minimal dietary requirements were being met, it was found that 13 per cent of all homemakers were living on diets classified as inadequate for all four basic food groups. By comparison, only 3 per cent were receiving foods from all four basic food groups comprising an adequate diet.

It was noted that the proportion of persons accepting EFNEP was greater for homemakers whose existing diets were already approaching adequacy. However, most important was the finding that 31 per cent of the homemakers who accepted the program failed to consume daily meals judged adequate in any of the four basic food groups. This is an important observation, but it should not obscure the further finding that the proportion of program acceptors was higher at each improved level of diet adequacy.

Although many homemakers in need of nutrition education are enrolling in EFNEP, there remains a large number in serious need who rejected participation during the initial recruitment effort. Continued periodic attempts to recontact these homemakers and to work through neighbors to stimulate their interest would appear justified in light of their generally poor nutrition practices.

Perhaps the poor diets of the homemakers rejecting EFNEP reflect a lack of interest in food preparation, so that an educational foods program does not appeal to them. In such cases, an interest in food must be generated by the program assistant before the

homemaker is likely to accept the program. It also must be remembered that more homemakers who rejected the program did not receive commodity foods than did those who enrolled. Families who received commodity foods are more likely to have food on hand, and this might make them more willing to participate in an educational foods program. Also, participants in the commodity food program were more likely to have had prior contact with the Chambers County Extension Service through the cooking school operated at the distribution center.

Commodity Foods and Family Diet

A prime source of prospective EFNEP enrollees was the families already participating in the Chambers County commodity food program. Since homemakers from commodity families were more likely to enroll in EFNEP than were homemakers in noncommodity families, it appeared important to determine differences in adequacy of daily diets between commodity program participants and nonparticipants. Adequacy of the diet was again judged in terms of the number of times foods from the four basic food groups were eaten.

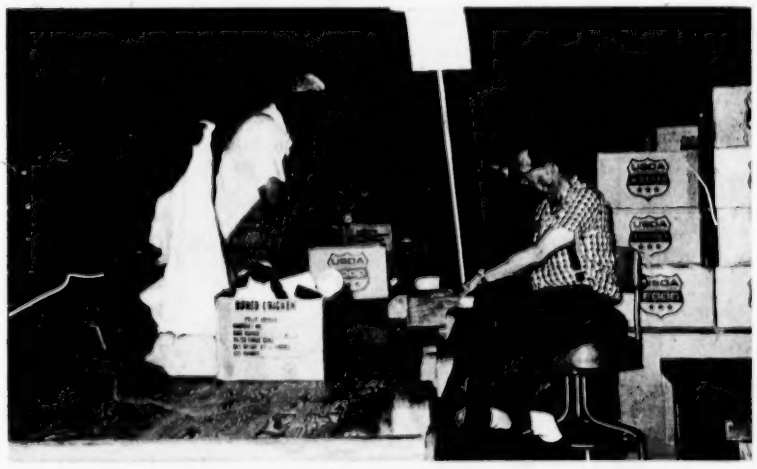
TABLE 8. FAMILY PARTICIPATION IN THE COMMODITIES FOOD PROGRAM RELATED TO ADEQUACY OF THE DAILY DIET, 1971

Dietary measures	Commodity food program			
	Participant (105)	Nonparticipant (42)	Total	
	Pct.	*Pct.*	*No.*	*Pct.*
Servings of each basic food group				
Meats[1]				
Less than required	18.1	33.3	33	22.4
Adequate	81.9	66.7	114	77.6
Bread/cereal				
Less than required	44.8	73.8	78	53.1
Adequate	55.2	26.2	69	46.9
Milk products[1]				
Less than required	71.4	100.0	117	79.6
Adequate	28.6	0.0	30	20.4
Vegetable/fruit[1]				
Less than required	91.4	95.2	136	92.5
Adequate	8.6	4.8	11	7.5
Diet adequacy[1]				
No groups	8.6	23.8	19	12.9
One	31.4	57.1	57	38.8
Two	36.2	16.7	45	30.6
Three	21.0	.....	22	15.0
Four	2.8	2.4	4	2.7

[1] Chi-square tests were significant at the .05 level of probability or lower.

Participants in the commodity food program were more likely to have received an adequate diet in each of the basic food groups than were nonparticipants, Table 8. The proportion of homemakers eating adequate servings was considerably greater with regards to meats (15 per cent), bread/cereal (29 per cent), and milk products (29 per cent). Diet adequacy for meat was generally high among all homemakers while only a few had an adequate diet of vegetables and fruits whether receiving commodity foods or not. Milk product consumption was inadequate by a majority of homemakers receiving commodity foods although they received such items as cheese and powdered milk. These findings clearly revealed that although commodity families tend to have somewhat better diets than nonparticipating families, many homemakers in both groups could benefit from a nutrition education program.

The composite picture of diet adequacy in terms of the number of basic food groups in which the family had received sufficient servings showed most distinctly the better diet of many commodity participants. Forty per cent of the commodity food families had diets considered adequate in only one or no basic food group, as compared with 80 per cent of those not on the commodity food program. Although many commodity food recipients can benefit from EFNEP, the findings suggest that this nutrition edu-



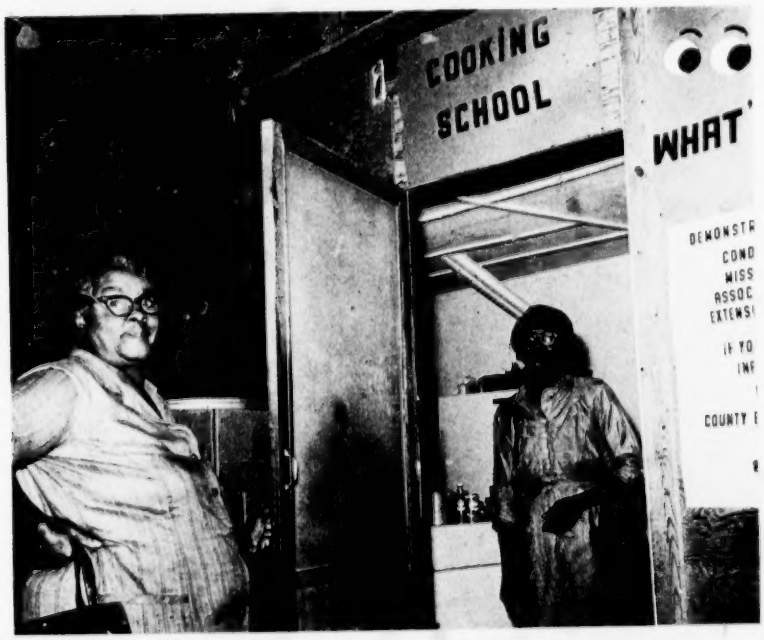
Chambers County commodity food distribution center.

cation program must pay particular attention to low-income families who are not receiving commodity foods.

Chambers County Cooking School

In seeking explanations for why commodity food families had better diets than noncommodity families, special mention must be made of a unique cooking school operated by the County Extension Service at the commodity distribution center. The school provided ideas and instruction to homemakers on how to best use the commodity foods received. Because many of these foods were not in a form familiar to the homemakers and were often not an integral part of their food preparation practices, they needed assistance in learning to prepare such foods in ways acceptable to their families. Homemakers received weekly instruction in how to provide adequate diets for their families by including servings from all four basic food groups.

Nutrition information imparted by the County Extension Service through the cooking school is believed to have played a major



Chambers County cooking school at commodity distribution center.

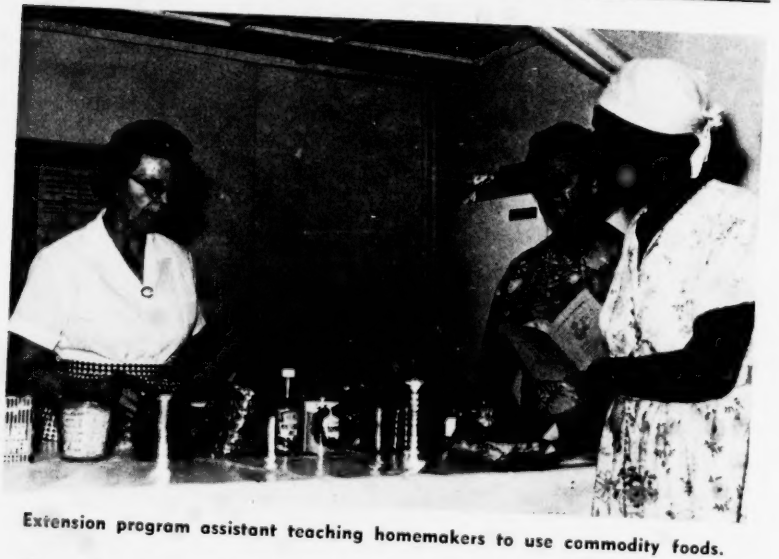
role in the better diets observed among many commodity food families. It was also believed that EFNEP was received more favorably by commodity homemakers because the Extension Service was already familiar to them and because they had developed a positive attitude toward learning new things about food preparation.

PROGRAM ASSISTANTS AND EFNEP

When the Chambers County EFNEP was begun during the summer of 1971, six paraprofessional program assistants were recruited and trained to carry out the program. These workers were married women of both races. All had a history of long residence in the County, including two who had lived there all their lives. Their ages ranged from 29 to 58, with three of them in their fifties.

Program assistants were from the local area and were generally representative of limited income families. However, none came from families with incomes of $3,000 or less. In addition, all had been exposed to some high school education and four had completed 12 years of schooling.

Extension program assistant and home economist working together in cooking school.



Extension program assistant teaching homemakers to use commodity foods.

Consideration of selected program assistant characteristics as they relate to homemaker acceptance or rejection of EFNEP revealed several important differences. Black program assistants calling predominantly on black homemakers had a lower rate of homemaker enrollment in EFNEP than did white assistants calling on white homemakers. Eighty-three per cent of the homemakers contacted by white program assistants enrolled in the program. By comparison, only half of the homemakers contacted by black program assistants enrolled.

Another sensitive indicator of differential homemaker response to the enrollment invitation occurred in terms of why the assistant said she desired a job with EFNEP. Assistants indicating a motivation to "work with people" because they like to meet and be with others were more successful than were those motivated by a "desire to help others." Perhaps the subtle difference between these two motivations might best be described as one of "liking them versus telling them." It is possible that the program assistant motivated by a desire to help comes on "too strongly," giving the homemaker the feeling of being told that she needs help rather than being asked whether she would like to participate.

The number of different techniques or methods used by the program assistant in making contact with the homemaker and

attempting to enroll her in EFNEP was also found to be important in the homemaker's response. The assistant who used several techniques in approaching each prospect was more successful in getting homemakers to enroll. One of the most commonly used techniques was to refer to the commodity food program and the Extension Service cooking school as a means of stimulating interest. Recipe leaflets were the next most used technique, followed closely by mention of the County Extension Service and some of its clubs and educational activities. Some program assistants made use of sample foods which they carried with them when calling on a homemaker.

Program assistants who used different techniques for arousing interest were probably exhibiting more enthusiasm for the program than were those who limited their approach to one or two techniques. These assistants apparently made the extra effort required to find the specific interests of each homemaker which might serve as the key to motivating enrollment in the program. Other studies have suggested that homemakers have to see how an educational program will contribute to their effectiveness before they will enroll *(3)*.

Finally, little difference in enrollment success was noted because of time of day or day of week the program assistant called on the homemaker. A homemaker contacted from Monday through Thursday (the more popular program assistant working days) was just as likely to accept or reject EFNEP participation as one contacted Friday through Sunday. Similarly, there was equal success from contacts made in the morning or the afternoon.

Program assistants made as many as four or five attempts to enroll some homemakers. However, the majority who enrolled did so when first contacted. Most of those who refused did so by the second visit. The vast majority of homemakers who were visited three or more times before making a definite decision eventually refused to enroll in the program. A large proportion of the homemakers who refused EFNEP stated they did not need help in anything or knew all about cooking already. Some were not getting commodities and could see no reason why they should have lessons on nutrition. Others merely stated they "didn't have time," mostly those working full-time outside the home.

SUMMARY AND IMPLICATIONS

The Expanded Food and Nutrition Education Program, with the goal of reaching and teaching low-income homemakers to improve nutritional practices for themselves and their families, was begun in Alabama in 1969. By June 1972, more than 20,000 Alabama families including more than 89,000 individuals were being reached through the efforts of nonprofessional Extension Service program assistants. Eighty-three per cent of the families enrolled in the program in 1972 had incomes of less than $3,000 per year and 59 per cent had less than $2,000 per year. Obviously, the Alabama Extension Service has been successful in reaching a large number of low-income families with EFNEP.

The question remained as to who among the low-income audience was being enrolled in EFNEP and who was less receptive or harder to reach. As the Expanded Food and Nutrition Education Program entered its fourth year, this question became an appropriate and important consideration. The Extension Service continues to work with low-income families and must face the challenge of reaching all segments of the low-income population.

The present study has been an effort to look into some of the questions pertaining to the "reaching" aspect of the program: Who is being reached? More specifically, are some homemaker characteristics associated with greater acceptance of EFNEP? Are there identifiable problems or characteristics that make some segments of low-income populations more difficult to reach? If so, can different approaches be used to interest and enroll these families? Can specific program assistant characteristics and techniques for contacting the low-income homemaker be associated with greater acceptance of the nutrition education program?

In an effort to answer these questions, the present study was conducted during spring 1971 in Chambers County just prior to implementation of EFNEP. A list of 147 homemakers provided by local agencies working with low-income families was used as a sample of prospective EFNEP participants. All homemakers whose names appeared on the list were interviewed to collect data pertaining to selected family background, homemaker characteristics, and existing family nutritional practices. At a later time, program assistants visited each homemaker and made a concerted effort to enroll her in EFNEP. The original sample of 147 homemakers was classified into two groups consisting of 85 who accepted EFNEP and 62 who refused to participate.

Findings and implications of the research are summarized as follows:

(1) Are some homemaker characteristics associated with greater acceptance of EFNEP? Yes.

a. Homemakers under 30 years of age.
b. Older homemakers (over 45) in families with a retired or disabled male head.
c. Homemakers with unemployed husbands.
d. Families who participated in programs of other public agencies.

(2) Were there identifiable characteristics of families or homemakers that make some segments of a low-income population harder to reach? Yes.

a. Employment of the homemaker outside the home was an important factor associated with rejection of the program. The problem resulted from a combination of the homemaker having too little time to participate in the program and the program assistant's inability to work with the homemaker during her "at-home" hours.
b. The level of living of the family, relative to the lack of such items as a range, refrigerator, and piped water was associated with rejection of the program. Homemakers who did not have a stove or refrigerator were much less likely to enroll than were those who had these items. It is highly probable that a homemaker without these facilities was embarrassed to have an outsider helping to prepare food in her inadequately equipped kitchen.
c. Homemakers who had the least adequate diets were most likely to reject EFNEP. Two-thirds of the homemakers who received inadequate servings of all food groups refused to join the educational program. Associated with this, families who were not receiving commodity foods and attending classes at the Extension cooking school were less likely to accept EFNEP than were those participating in the commodity program. Also, families who had little variety in their daily diets were less likely to accept the program.
d. White homemakers were more receptive of the program than were blacks. The difference here was almost a two to one ratio of white homemaker acceptance compared to that for black homemakers.
e. Alienation of homemakers revealed by pessimistic life outlooks and nonuse of community services was more often associated with homemakers who rejected the nutrition education program than with those who enrolled.

(3) Are some program assistant characteristics and techniques associated with greater homemaker acceptance of EFNEP? Yes.

a. Program assistants who attempted to enroll homemakers by using a number of different techniques were more successful. Techniques used by these program assistants included referring to the commodity foods program and the Extension Service cooking school, showing

homemakers recipe leaflets, referring to County Extension staff members, and using sample foods and idea baskets.

b. Most homemakers who accepted the program did so on the first visit. By the third contact, the majority of the homemakers rejected the invitation to participate in the program.

The need for different approaches to interest and enroll "hard-to-reach" families is apparent. Program assistants and program supervisors need to be alert to homemaker needs and possible barriers to entry into EFNEP. For many homemakers, an interest in food preparation must be generated. It is desirable in such instances to determine the interests of the homemaker and to model the approach to appeal to these interests. Once the homemaker has been won to the program, the educational effort may be gradually directed toward nutritional activities.

Study findings should be meaningful to supervisors of unit programs as they analyze current progress in homemaker enrollment, and as they direct future attempts to locate and enroll new homemakers and families.

ACKNOWLEDGMENT

This report represents culmination of the first phase of a research study conducted by the Department of Agricultural Economics and Rural Sociology, Alabama Agricultural Experiment Station, in cooperation with the Alabama Cooperative Extension Service. Funds for the study were provided through the Hatch Act as a contributing project to research in rural development.

Success of a study such as this demands a high level of cooperation from all concerned. The researchers were fortunate to have received all the cooperation and support they could have hoped for from many sources. We are most grateful to Mrs. Mary E. Coleman, Assistant Director for Womens Work, ACES, and to Miss Fariss Prickett, Miss Belle Downey, and Mrs. Virginia White, members of her staff, for their support, ideas, and encouragement. Also, Dr. Evelyn H. Johnson, Specialist in Food and Nutrition, Federal Extension Service, USDA, graciously served as a consultant and offered many helpful suggestions on the design and implementation of the survey and analysis.

We wish to extend special thanks to Miss Exa Till, Associate County Extension Chairman in Chambers County, who allowed us to coordinate our interviewing of low-income homemakers with the initiation of EFNEP. Thanks are also extended to the program assistants who provided follow-up information on their attempts to contact and enroll homemakers in the program.

We wish to recognize the assistance of one of our co-workers in the Department of Agricultural Economics and Rural Sociology, Mrs. Ruth A. Hammett, who served on the original planning committee for the "Alabama Pilot Project Involving Young Homemakers in Low-Income Rural Areas." She provided invaluable consultation throughout all phases of project planning, execution, analysis, and reporting.

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